

### **REMARKS**

In response to the Office Action mailed July 12, 2005, Applicant respectfully requests reconsideration. Claims 1-3, 8, 9 and 16-21 were previously pending in this application. By this amendment, claims 1, 2, 8 and 17-21 are amended. Claim 16 is canceled. As a result, claims 1-3, 8, 9 and 17-21 are pending for examination with claim 1 being independent. No new matter has been added.

#### **II. Rejections Under 35 U.S.C. §112**

The Office Action rejects claims 8 and 9 under 35 U.S.C 112, second paragraph, as purportedly being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

In particular, claim 8 is rejected because the language ‘when present’ is allegedly unclear as to whether it refers to the hybrid networks or the signals. Applicant has amended claim 8 to remove the above identified language to overcome the rejection. Claim 8, as amended, recites “each of the plurality of echo-cancel hybrid networks configured to receive the at least one combined signal provided by the termination impedance circuit,” and is believed to satisfy §112, ¶2.

Claim 9 is rejected because of the language “one or more of the at least one adjusted signal.” The Office Action asserts that it is not clear how “one hybrid configuration could produce more than one output signal.” Applicant respectfully directs the Examiner’s attention to FIGS. 16A and 16B, where each of the hybrid network(s) are illustrated as outputting two signals. The hybrid networks may, for example, output differential signals (two signals) or a single-ended signal (see e.g., page 28, second paragraph). Accordingly, Applicant believes claim 9 is clear and definite and therefore satisfies §112, ¶2.

## II. Rejections Under 35 U.S.C. §103

The Office Action rejects claims 1-3, 8, 9, 16-18, 20 and 21 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,115,466 (Bella) in view of U.S. Patent No. 6,298,046 (Thiele). Applicant respectfully traverses this rejection.

The Office Action concedes that Bella does not disclose “an additional adaptable echo cancel circuit.” However, the Office Action asserts that Thiele discloses “an adaptive hybrid circuit (Figs. 9-12: Thiele) that is controllable via signals that control the switches of Figs. 9-11.” Applicant respectfully disagrees for at least two reasons: 1) there is no motivation to combine Bella and Thiele; and 2) even if the combination were proper, the combination does not disclose each of the limitations of the claims.

### A. There is No Motivation to Combine Bella and Thiele

The Office Action asserts that it would have been obvious to one of ordinary skill in the art at the time of this application “to implement an adaptive echo canceling circuit (hybrid) for the purpose of greater compatibility with varying line impedances.” However, the problems that Bella and Thiele are respectively attempting to solve are entirely different. In particular, Thiele is directed towards an adjustable balancing circuit for handling variation in line impedances caused by *long and short bridged taps* of unknown length used to facilitate line sharing (col. 7, lines 19-27). On the other hand, Bella is directed to providing a variable impedance POTS filter to account for changes in impedance caused by *on-hook and off-hook line conditions* (col. 4, line 18 – col. 5, line 35).

Nowhere does Bella mention anything about bridged taps or impedance mismatches associated with them. Moreover, Thiele is completely silent with respect to POTS communication. Rather, Thiele is directed to a specific problem in full duplex ADSL and HDSL communications lines and mentions nothing at all about POTS or problems associated therewith. Accordingly, a person of ordinary skill in the art seeking to solve problems associated with on-hook and off-hook impedance characteristics in a POTS framework, would not look to a reference that neither mentions POTS nor addresses any problems associated with POTS.

The motivation asserted in the Office Action is merely a general statement that greater compatibility with respect to varying line impedances is good. However, the alleged motivation ignores the fact that the problems being solved by Bella and Thiele are entirely different and unrelated. That is, the alleged motivation is nowhere found in either Bella or Thiele. Therefore, the Office Action has failed to establish a *prima facie* case of obviousness (see MPEP §2143.01), and Applicant respectfully requests that the rejection be withdrawn.

B. The Alleged Combination Fails to Teach All the Limitations in the Claims

Even if the combination of Bella and Thiele were proper, the resulting combination does not show all the limitations recited in the amended claims. While Applicant believes the claims, as previously presented, distinguish over the combination of Bella and Thiele, Applicant has amended the claims to more distinctly point out the differences to further the prosecution of this application.

Bella provides a dual mode POTS filter 230 that receives signals over twisted pair cable 202, low pass filters the signal to remove the ADSL components and isolate the POTS signal, and provides the analog POTS signal to public switched telephone network (PSTN) 232. That is, POTS filter 230 provides, as an output, a POTS signal only. Bella is completely silent with respect to providing a combined signal having POTS and DSL components. Thiele provides an adjustable balancing circuit 900 that receives a transmitted signal 901. Thiele is completely silent with respect to receiving a combined signal having POTS and DSL components.

Claim 1, as amended, recites a telephony device connected to a telephone line which supports multiple different telephone signal protocols. The telephony device comprises a termination impedance circuit configured to provide an impedance associated with a frequency range of a DSL signal protocol, and an impedance associated with a frequency range of a POTS signal protocol, wherein the impedance associated with the frequency range of the POTS signal protocol is selectable to provide one of an off-hook impedance and an on-hook impedance in response to one of an off-hook condition and an on-hook condition associated with the POTS signal protocol, the termination impedance circuit providing at least one combined signal having DSL and POTS components, and an echo cancel circuit coupled to the termination impedance

circuit to receive the combined signal, the echo cancel circuit adapted to provide an adjustment to the at least one combined signal provided by the termination impedance circuit, the echo cancel circuit having a select signal to select the adjustment from a plurality of adjustments.

Nowhere does the combination of Bella and Thiele disclose or suggest a termination impedance circuit having impedances associated with a DSL and POTS protocol that provides "at least one combined signal having DSL and POTS components," nor does the combination disclose or suggest an echo cancel circuit that "provides an adjustment to the at least one combined signal provided by the termination impedance circuit," as recited in claim 1.

Therefore, claim 1 patentably distinguishes over the combination and is in allowable condition.

Claims 2, 3, 8, 9 and 17-21 depend from claim 1 and are allowable for at least the same reasons.

Serial No.: 09/747,801  
Conf. No.: 4649

- 9 -

Art Unit: 2643

**CONCLUSION**

In view of the foregoing amendments and remarks, this application should now be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's attorney at the telephone number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

Respectfully submitted,  
*Colm Prendergast et al., Applicants*

By: *Randy J. Pritzker*

Randy J. Pritzker, Reg. No. 35,986  
Wolf, Greenfield & Sacks, P.C.  
600 Atlantic Avenue  
Boston, Massachusetts 02210-2211  
Telephone: (617) 720-3500

Docket No. A0312.70387US00  
Date: January 11, 2006  
x01/12/06x